Listing of Claims

- (Currently Amended) A-coating paint comprising a-biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaccous material which is configured to bind to a chemical that is toxic to humans.
- 2, -6, (Canceled)
- (Withdrawn Currently Amended) The-eoating paint of claim-61, wherein the ligand comprises an organophosphorus compound.
- 8. (Currently Amended) The <u>coating paint</u> of claim-21, wherein the proteinaceous molecule comprises a peptide, a polypeptide, or a protein, or a combination thereof.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim 8, wherein the proteinaceous molecule comprises an enzyme, an antibody, a receptor, a transport protein, <u>or a structural</u> protein, or a combination thereof.
- (Currently Amended) The coating paint of claim 8, wherein the proteinaceous molecule comprises an enzyme.
- 11. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 10, wherein the enzyme comprises an oxidoreductase, a transferase, a hydrolase, a lyase, an isomerase, a ligase, or a combination thereof.
- (Withdrawn Currently Amended) The coating paint of claim 11, wherein the enzyme comprises a hydrolase.
- (Withdrawn Currently Amended) The-eoating paint of claim 12, wherein the hydrolase comprises an esterase.

- 14. (Withdrawn Currently Amended) The coating paint of claim 13, wherein the esterase comprises a phosphoric triester hydrolase.
- 15. (Withdrawn Currently Amended) The coating paint of claim 14, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase, a diisopropyl-fluorophosphatase, or a combination thereof.
- 16. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 14, wherein the phosphoric triester hydrolase comprises a combination of phosphoric triester hydrolases.
- (Withdrawn Currently Amended) The coating paint of claim 4514, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase.
- 18. (Withdrawn Currently Amended) The coating paint of claim 4517, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase, a human paraoxonase, an animal carboxylase, or a functional equivalent thereof.
- (Withdrawn Currently Amended) The eoating paint of claim 4517, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase or a functional equivalent thereof.
- 20. (Withdrawn Currently Amended) The eoating paint of claim 19, wherein the organophosphorus hydrolase comprises an Agrobacterium radiobacter P230 organophosphate hydrolase, a Flavobacterium balustinum parathion hydrolase, a Pseudomonas diminuta phosphotriesterase, a Flavobacterium sp opd gene product, a Flavobacterium sp. parathion hydrolase opd gene product, or a functional equivalent thereof.

- 21. (Withdrawn Currently Amended) The <u>coating paint</u> of claim <u>2010</u>, wherein the organophosphorus hydrolase comprises a functional equivalent of <u>a Agrobacterium radiobacter</u> P230 organophosphate hydrolase, a *Flavobacterium balustinum* parathion hydrolase, a *Pseudomonas diminuta* phosphotriesterase, a *Flavobacterium sp opd* gene product, or a *Flavobacterium sp*. parathion hydrolase *opd* gene product.
- (Withdrawn Currently Amended) The-coating paint of claim 21, wherein the functional
 equivalent is a structural analog.
- 23. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 22, wherein the structural analog comprises a Co^{2+} , Fe^{2+} , Cu^{2+} , Mn^{2+} , Cd^{2+} , or Ni^{2+} at the enzyme active site.
- 24. (Withdrawn Currently Amended) The-eoating paint of claim 21, wherein the functional equivalent is a sequence analog.
- 25. (Withdrawn Currently Amended) The <u>coating paint</u> of claim <u>2124</u>, wherein the sequence analog is an alteration in sequence length.
- 26. (Withdrawn Currently Amended) The <u>eoating paint</u> of claim 24, wherein the sequence analog lacks a leader peptide sequence.
- 27. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 24, wherein the sequence analog is a fusion protein.
- 28. (Withdrawn Currently Amended) The coating paint of claim 2019, wherein the organophosphorus hydrolase comprises a *Pseudomonas diminuta* phosphotriesterase; or a functional equivalent thereof.

29. - 30. (Canceled)

- (Withdrawn Currently Amended) The coating paint of claim 28, wherein the Pseudomonas diminuta phosphotriesterase functional equivalent comprises a sequence analog.
- 32. (Withdrawn Currently Amended) The eoating paint of claim 31, wherein the sequence analog comprises an amino acid substitution.
- 33. (Withdrawn Currently Amended) The-eoating paint of claim 32, wherein the sequence analog is H55C, H57C, C59A, G60A, S61A, I106A, I106G, W131A, W131F, W131K, F132A, F132H, F132Y, L136Y, L140Y, H201C, H230C, H254A, H254R, H254S, H257A, H257L, H257Y, L271A, L271Y, L303A, F306A, F306E, F306H, F306K, F306Y, S308A, S308G, Y309A, M317A, M317H, M317K, M317R, H55C/H57C, H55C/H201C, H55C/H230C, H57C/H201C, H57C/H230C, A80V/S365P, I106A/F132A, I106A/S308A, I106G/F132G, I106G/S308G, F132Y/F306H, F132H/F306H, F132H/F306Y, F132Y/F306Y, F132A/S308A, F132G/S308G, L182S/V310A, H201C/H230C, H254R/H257L, H55C/H57C/H201C, H55C/H57C/H201C, H55C/H57C/H201C, H55C/H57C/H201C, H55C/H57C/H201C, H55C/H57C/H201C/H230C, I106A/F132A/H257Y, I106A/F132A/H257W, I106G/F132G/S308G, L130M/H257Y/1274N, H257Y/I274N/S365P, H55C/H57C/H201C/H230C, I106G/F132G/H257Y/S308G, or A14T/A80V/L185R/H257Y/I274N.
- 34. (Withdrawn Currently Amended) The <u>eoating paint</u> of claim 17, wherein the aryldialkylphosphatase comprises a human paraoxonase or a functional equivalent thereof.
- (Withdrawn Currently Amended) The coating paint of claim 34, wherein the human paraoxonase comprises an HPON1 gene product or a functional equivalent thereof.
- 36. (Canceled)
- (Withdrawn Currently Amended) The coating paint of claim 2835, wherein the HPON1
 gene product functional equivalent comprises a sequence analog.

- (Withdrawn Currently Amended) The coating paint of claim 37, wherein the sequence analog comprises an amino acid substitution.
- 39. (Withdrawn Currently Amended) The coating paint of claim 38, wherein the sequence analog is E32A, E48A, E52A, D53A, D88A, D107A, H114N, D121A, H133N, H154N, H160N, W193A, W193F, W201A, W201F, H242N, H245N, H250N, W253A, W253F, D273A, W280A, W280F, H284N, or H347N.
- 40. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 17, wherein the aryldialkylphosphatase comprises an animal carboxylase.
- (Withdrawn Currently Amended) The coating paint of claim 40, wherein the animal carboxylase comprises an insect carboxylase or a functional equivalent thereof.
- 42. (Withdrawn Currently Amended) The eoating paint of claim 41, wherein the insect carboxylase comprises a *Plodia inrerpunctella* carboxylase, *Chrysomya putoria* carboxylase, *Lucilia cuprina* carboxylase, *Musca domestica* carboxylase earboxylase, or a functional equivalent thereof.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim <u>1514</u>, wherein the phosphoric triester hydrolase comprises a diisopropyl-fluorophosphatase.
- 44. (Withdrawn Currently Amended) The <u>eoating paint</u> of claim 43, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase, a squid-type DFPase, a Mazur-type DFPase, or a functional equivalent thereof.
- 45. (Withdrawn Currently Amended) The coating paint of claim [[44]]43, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase or a functional equivalent thereof.

- 46. (Withdrawn Currently Amended) The coating paint of claim 45, wherein the organophosphorus acid anhydrolase comprises an Altermonas organophosphorus acid anhydrolase, a prolidase, or a functional equivalent thereof.
- 47. (Withdrawn Currently Amended) The coating paint of claim [[46]]45, wherein the organophosphorus acid anhydrolase comprises an Altermonas organophosphorus acid anhydrolase or a functional equivalent thereof.
- 48. (Withdrawn Currently Amended) The coating paint of claim 47, wherein the Altermonas organophosphorus acid anhydrolase comprises an Altermonas sp JD6.5 organophosphorus acid anhydrolase, an Altermonas haloplanktis organophosphorus acid anhydrolase, an Altermonas undina organophosphorus acid anhydrolase, or a functional equivalent thereof.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim [[46]]45, wherein the organophosphorus acid anhydrolase comprises a prolidase or a functional equivalent thereof.
- 50. (Withdrawn Currently Amended) The <u>-eoating paint</u> of claim 49, wherein the prolidase comprises a human prolidase, a *Mus musculus* prolidase, a *Lactobacillus helveticus* prolidase, an *Escherichia coli* prolidase, an *Escherichia coli* aminopeptidase P, or a functional equivalent thereof.
- 51. (Withdrawn Currently Amended) The-eoating paint of claim [[141]]43, wherein the diisopropyl-fluorophosphatase comprises a squid-type DFPase; or a functional equivalent thereof.
- 52. (Withdrawn Currently Amended) The coating paint of claim 51, wherein the squid-type DFPase comprises a Loligo vulgaris DFPase, a Loligo pealei DFPase, a Loligo opalescens DFPase, or a functional equivalent thereof.
- (Withdrawn Currently Amended) The coating paint of claim 52.51, wherein the squid-type DFPase comprises a Loligo vulgaris opalescens DFPase; or a functional equivalent thereof.

- 54. (Withdrawn Currently Amended) The <u>coating paint</u> of claim. <u>53.51</u>, wherein the squid-type DFPase comprises a *Loligo vulgaris-pealei* DFPase; or a functional equivalent thereof.
- (Withdrawn Currently Amended) The eoating paint of claim-54.51, wherein the squid-type DFPase comprises a Loligo vulgaris DFPase functional equivalent.
- 56. (Withdrawn Currently Amended) The <u>eoating paint</u> of claim 55, wherein the Loligo vulgaris DFPase functional equivalent comprises a sequence analog.
- 57. (Withdrawn Currently Amended) The coating paint of claim 56, wherein the sequence analog comprises an amino acid substitution.
- (Withdrawn Currently Amended) The coating paint of claim 57, wherein the sequence analog is H181N, H224N, H274N, H219N, H248N, or H287N.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim 57, wherein the sequence analog is an alteration in sequence length.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim 59, wherein the sequence analog is a fusion protein.
- 61. (Withdrawn Currently Amended) The coating paint of claim [[44]]43, wherein the diisopropyl-fluorophosphatase comprises a Mazur-type DFPase or a functional equivalent thereof.
- 62. (Withdrawn Currently Amended) The coating paint of claim 61, wherein the Mazur-type DFPase comprises a mouse liver DFPase, a hog kidney DFPase, a Bacillus stearothermophilus strain OT DFPase, an Escherichia coli DFPase, or a functional equivalent thereof.

63. (Currently Amended) The <u>coating paint</u> of claim-1_14, wherein the phosphoric triester hydrolase comprises a *Plesiomonas* sp. strain M6 nzpd gene product, a *Xanthomonas sp.* phosphoric triester hydrolase, a *Tetrahymena* phosphoric triester hydrolase, or a functional equivalent thereof.

64. (Canceled)

- 65. (Withdrawn Currently Amended) The <u>coating paint</u> of claim-641, wherein the proteinaceous molecule <u>is further configured to comprises a ligand-capable of binding-bind</u> to an <u>active biomolecule of thea</u> living organism.
- 66. (Withdrawn Currently Amended) The coating paint of claim 65, wherein the active biomelecule of the living organism comprises a receptor, an enzyme, a transport protein, or a combination thereof.
- 67. (Currently Amended) The coating paint of claim 1, wherein the biomolecular composition proteinaceous material comprises approximately 0.001% to approximately 40% of the coating paint composition by weight or volume.
- 68. (Canceled)
- 69. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the biomolecule composition proteinaceous material comprises a microorganism based particulate material.
- 70. (Withdrawn Currently Amended) The coating paint of claim 69, wherein the microorganism based particulate material <u>is</u> a whole cell material.
- (Withdrawn Currently Amended) The coating paint of claim 70, wherein the
 microorganism based particulate material is a cell fragment microorganism based particulate
 material

- (Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a buffer
- (Currently Amended) The coating paint of claim-21_72, wherein the buffer comprises a bicarbonate.
- 74. (Currently Amended) The eoating paint of claim 1, wherein the eoating paint is approximately 5 um µm to approximately 1500 um µm thick upon the a surface in a state of matter selected from a group consisting of a liquid and a solid.
- 75. (Currently Amended) The coating paint of claim 1, wherein the coating paint is approximately 15 mm m to approximately 500 mm m thick upon the a surface in a state of matter selected from a group consisting of a liquid and a solid.
- 76. (Canceled)
- 77. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a clear coating.
- 78. (Withdrawn Currently Amended) The-eoating paint of claim 77, wherein the clear coating comprises a lacquer, a varnish, a shellac, a stain, a water repellent coating, or a combination thereof
- (Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a
 multicoat system.
- 80. (Currently Amended) The coating paint of claim 79, wherein the multicoat system comprises 2 to 10 layers.
- (Currently Amended) The coating paint of claim 80, wherein one layer of the multicoat system comprises the biomolecular composition proteinaceous material.

- (Currently Amended) The coating paint of claim 80, wherein a plurality of layers of the
 multicoat system comprise the biomolecular composition proteinaccous material.
- 83. (Currently Amended) The eoating paint of claim 80, wherein each layer of the muiticoat system is eoating paint is approximately 15 um μm to approximately 150 um μm thick in a state of matter selected from a group consisting of a liquid and a solid.
- 84. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 79, wherein the multicoat system comprises a sealer, a water repellent, a primer, an undercoat, or a topcoat.
- (Withdrawn Currently Amended) The coating paint of claim 79, wherein the multicoat system comprises a topcoat.
- (Withdrawn Currently Amended) The <u>coating paint</u> of claim 85, wherein the topcoat comprises the <u>biomolecular composition proteinaceous material</u>.
- 87. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating paint further comprises a binder, a liquid component, a colorant, an additive, or a combination thereof.
- 88. (Currently Amended) The coating paint of claim 1, wherein the coating paint undergoes film formation.
- 89. (Currently Amended) The coating paint of claim 88, wherein the film formation occurs at ambient conditions a temperature between approximately -10 °C and approximately 40 °C.
- (Withdrawn Currently Amended) The coating paint of claim 88, wherein film formation occurs at baking conditions.
- (Withdrawn Currently Amended) The coating paint of claim 90, wherein the baking conditions is comprise a temperature between approximately 40 °C and approximately 50 °C.

- (Withdrawn Currently Amended) The coating paint of claim 90, wherein the baking conditions comprise a temperature is between approximately 40 °C and approximately 65°C.
- (Withdrawn Currently Amended) The coating paint of claim 90, wherein the baking conditions comprise a temperature is between approximately 40 °C and approximately 110 °C.
- (Currently Amended) The coating paint of claim 88, wherein the coating paint comprises a
 volatile component and a non-volatile component.
- (Currently Amended) The <u>coating paint</u> of claim 94, wherein the <u>coating paint</u> undergoes film formation by loss of part of the volatile component.
- (Currently Amended) The coating paint of claim 94, wherein the volatile component comprises a volatile liquid component.
- (Currently Amended) The eoating paint of claim 96, wherein the volatile liquid component comprises a solvent, a thinner, a diluent, or a combination thereof.
- 98. (Withdrawn Currently Amended) The coating paint of claim 94, wherein the non-volatile component comprises a binder, a colorant, a plasticizer, a coating additive, or a combination thereof.
- 99. (Withdrawn Currently Amended) The coating paint of claim 88, wherein film formation occurs by crosslinking of a binder.
- 100. (Withdrawn Currently Amended) The coating paint of claim 99, wherein film formation occurs by crosslinking of a plurality of binders.
- 101. (Withdrawn Currently Amended) The coating paint of claim 88, wherein film formation occurs by irradiating the coating paint.

- 102. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating paint produces a self-cleaning film.
- 103. (Currently Amended) The coating paint of claim 1, wherein the coating paint is a non-film forming coating.
- 104. (Withdrawn Currently Amended) The coating paint of claim 103, wherein the non-film forming coating comprises a non-film formation binder.
- 105. (Currently Amended) The coating paint of claim 103, wherein the non-film forming coating comprises a coating component in a concentration that is insufficient to produce a solid film.
- 106. (Withdrawn Currently Amended) The eoating paint of claim 105, wherein the coating component comprises a binder that contributes to thermoplastic film formation.
- 107. (Withdrawn Currently Amended) The coating paint of claim 105, wherein the coating component contributes to thermosetting film formation.
- 108. (Withdrawn Currently Amended) The coating paint of claim 107, wherein the coating component comprises a binder, catalyst, initiator, or combination thereof.

109. (Canceled)

- 110. (Currently Amended) The coating paint of claim-1101, wherein the coating paint produces a temporary film lasting upon a surface for a time period between approximately 1 second and approximately 6 months.
- 111. (Currently Amended) The coating paint of claim 110, wherein the temporary film has a poor resistance to a coating remover is susceptible to wear by exposure to water, exposure to weathering conditions, or a combination thereof.

- 112. (Currently Amended) The <u>coating paint</u> of claim 110, wherein the temporary film-has a poor is susceptible to wear by a scrubbing action, serub resistance, a poor exposure to a solvent resistance, a poor water resistance, a poor weathering property, a poor adhesion property, or a combination thereof.
- 113. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating comprises an architectural coating, an industrial coating, a specification coating, or a combination thereof.
- 114. (Withdrawn Currently Amended) The eouting paint of claim 1, wherein the eouting paint comprises an architectural coating.
- 115. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 114, wherein the architectural coating comprises a wood coating, a masonry coating, an artist's coating, or a combination thereof.
- 116. (Withdrawn Currently Amended) The coating paint of claim 114, wherein the architectural coating has a pot life of at least 12 months at ambient conditions temperatures between approximately -10 °C and approximately 40 °C.
- 117. (Withdrawn Currently Amended) The eoating paint of claim 114, wherein the architectural paint undergoes film formation at ambient conditions temperatures between approximately -10°C and approximately 40 °C.
- 118. (Withdrawn Currently Amended) The-eoating paint of claim 1, wherein the coating comprises an industrial coating.
- 119. (Withdrawn Currently Amended) The conting paint of claim 118, wherein the industrial paint comprises an automotive paint, a can paint, sealant paint, a marine paint, or a combination thereof.

- 120. (Withdrawn Currently Amended) The eoating paint of claim 119, wherein the industrial paint undergoes film formation at baking conditions.
- 121. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the paint comprises a specification paint.
- 122. (Withdrawn Currently Amended) The coating paint of claim 121, wherein the specification coating comprises a pipeline coating, traffic marker coating, aircraft coating, a nuclear power plant coating, or a combination thereof.
- 123. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a water-borne coating paint.
- 124. (Withdrawn Currently Amended) The eouting paint of claim 123, wherein the water-borne eouting paint is a latex-eouting paint.
- 125. (Withdrawn Currently Amended) The coating paint of claim 123, wherein the water-borne coating paint has a density of approximately 1.20 kg/L to approximately 1.50 kg/L.
- 126. (Currently Amended) The eoating paint of claim 1, wherein the eoating paint comprises a solvent-borne eoating paint.
- 127. (Currently Amended) The coating paint of claim 126, wherein the solvent-borne coating paint has a density of approximately 0.90 kg/L to approximately 1.2 kg/L.
- 128. (Currently Amended) The <u>coating paint</u> of claim 1, wherein the <u>coating paint</u> has a viscosity during application of <u>approximately 72</u> Ku to <u>approximately 95</u> Ku.
- 129. (Currently Amended) The coating paint of claim 1, wherein the coating paint has a viscosity prior to application of approximately 100 P to approximately 1000 P.

- 130. (Currently Amended) The coating paint of claim 1, wherein the coating paint has a viscosity during application of approximately 0.5 P to approximately 2.5 P.
- 131. (Currently Amended) The eoating paint of claim 1, wherein the eoating paint has a viscosity of approximately 100 P to approximately 1000 P upon a surface immediately after application.
- 132. (Withdrawn Currently Amended) The coating paint of claim 1, wherein the coating paint further comprises a binder.
- 133. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a thermoplastic binder, a thermosetting binder, or a combination thereof.
- 134. (Withdrawn Currently Amended) The eoating paint of claim—133_132, wherein the eoating binder comprises a thermoplastic binder.
- 135. (Withdrawn Currently Amended) The eoatingpaint of claim 134, wherein the eoatingpaint produces a film by thermoplastic film formation.
- 136. (Withdrawn Currently Amended) The eoating paint of claim-133_132, wherein the eoating binder comprises a thermosetting binder.
- 137. (Withdrawn Currently Amended) The-eoating paint of claim 136, wherein the eoating paint produces a film by thermosetting film formation.
- 138. (Withdrawn Currently Amended) The-eoating paint of claim 132, wherein the binder comprises an oil-based binder.
- 139. (Withdrawn Currently Amended) The coating paint of claim 138, wherein the oil-based binder comprises an oil, an alkyd, an oleoresinous binder, a fatty acid epoxide ester, or a combination thereof.

- 140. (Withdrawn Currently Amended) The eoating paint of claim 139, wherein the eoating paint produces a layer approximately 15 um-μm to approximately 25 μm thick upon the a vertical surface or approximately 15 um-μm to approximately 40 μm thick upon the a horizontal surface.
- 141. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises an oil.
- 142. (Withdrawn Currently Amended) The eouting paint of claim 132, wherein the binder comprises an alkyd.
- 143. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises an oleoresinous binder.
- 144. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 132, wherein the binder comprises a fatty acid epoxide ester.
- 145. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a polyester resin.
- 146. (Withdrawn Currently Amended) The eoating paint of claim 145, wherein the polyester resin comprises a hydroxy-terminated polyester.
- 147. (Withdrawn Currently Amended) The coating paint of claim 145, wherein the polyester resin comprises a carboxylic acid-terminated polyester.
- 148. (Withdrawn Currently Amended) The eoating paint of claim 145, wherein the eoating paint further comprises a urethane, an amino resin, or a combination thereof.
- 149. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a modified cellulose.

- 150. (Withdrawn Currently Amended) The coating paint of claim 149, wherein the modified cellulose comprises a cellulose ester.
- 151. (Withdrawn Currently Amended) The eouting paint of claim 149, wherein the modified cellulose comprises a nitrocellulose.
- 152. (Withdrawn Currently Amended) The coating paint of claim 149, wherein the coating paint further comprises an amino binder, an acrylic binder, urethane binder, or a combination thereof.
- 153. (Withdrawn Currently Amended) The-coating paint of claim 132, wherein the binder comprises a polyamide.
- 154. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 153, wherein the <u>coating paint further</u> comprises an epoxide.
- 155. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 132, wherein the binder comprises an amino resin.
- 156. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 155, wherein the <u>coating paint further</u> comprises an acrylic binder, an alkyd resin, a polyester binder, or a combination thereof
- 157. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises an urethane binder.
- 158. (Withdrawn Currently Amended) The coating paint of claim 157, wherein the coating paint further comprises a polyol, an amine, an epoxide, a silicone, a vinyl, a phenolic, a triacrylate, or a combination thereof.

- 159. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a phenolic resin.
- 160. (Withdrawn Currently Amended) The eoating paint of claim 159, wherein the eoating paint further comprises an alkyd resin, an amino resin, a blown oil, an epoxy resin, a polvamide, a polyvinyl resin, or a combination thereof.
- 161. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises an epoxy resin.
- 162. (Withdrawn Currently Amended) The coating paint of claim 161, wherein the coating paint further comprises an amino resin a phenolic resin, a polyamide, a ketimine, an aliphatic amine, or a combination thereof.
- 163. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 161, wherein the epoxy resin comprises a cycloaliphatic epoxy binder.
- 164. (Withdrawn Currently Amended) The coating paint of claim 163, wherein the coating paint further comprises a polyol.
- 165. (Withdrawn Currently Amended) The-coating paint of claim 132, wherein the binder comprises a polyhydroxyether binder.
- 166. (Withdrawn Currently Amended) The coating paint of claim 165, wherein the coating paint further comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.
- 167. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises an acrylic resin.

- 168. (Withdrawn Currently Amended) The coating paint of claim 167, wherein the coating paint further comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.
- 169. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a polyvinyl binder,
- 170. (Withdrawn Currently Amended) The eoating paint of claim 169, wherein the eoating paint further comprises an alkyd, an urethane, an amino-resin, or a combination thereof.
- 171. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a rubber resin.
- 172. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 171, wherein the rubber resin comprises a chlorinated rubber resin, a synthetic rubber resin, or a combination thereof.
- 173. (Withdrawn Currently Amended) The coating paint of claim 171, wherein the coating paint further comprises an acrylic resin, an alkyd resin, a bituminous resin, or a combination thereof.
- 174. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a bituminous binder.
- 175. (Withdrawn Currently Amended) The eoating paint of claim 174, wherein the eoating paint further comprises an epoxy resin.
- 176. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a polysulfide binder.

- 177. (Withdrawn Currently Amended) The coating paint of claim 176, wherein the coating paint further comprises a peroxide, a binder comprising an isocyanate moiety, or a combination thereof
- 178. (Withdrawn Currently Amended) The coating paint of claim 132, wherein the binder comprises a silicone binder.
- 179. (Withdrawn Currently Amended) The eoating paint of claim 178, wherein the eoating paint further comprises an organic binder.
- 180. (Currently Amended) The eoating paint of claim 1, wherein the eoating paint comprises a liquid component.
- 181. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 180, wherein the liquid component comprises a solvent, a thinner, a diluent, a plasticizer, or a combination thereof.
- 182. (Withdrawn Currently Amended) The coating paint of claim 180, wherein the liquid component comprises a liquid organic compound, an inorganic compound, water, or a combination thereof.
- 183. (Withdrawn Currently Amended) The-coating paint of claim 180, wherein the liquid component comprises a liquid organic compound.
- 184. (Withdrawn Currently Amended) The coating paint of claim 183, wherein the liquid organic compound comprises a hydrocarbon, an oxygenated compound, a chlorinated hydrocarbon, a nitrated hydrocarbon, a miscellaneous organic liquid component, a plasticizer, or a combination thereof.
- 185. (Withdrawn Currently Amended) The coating paint of claim-184 183, wherein the liquid organic compound comprises a hydrocarbon.

- 186. (Withdrawn Currently Amended) The coating paint of claim 185, wherein the hydrocarbon comprises an aliphatic hydrocarbon, a cycloaliphatic hydrocarbon, a terpene, an aromatic hydrocarbon, or a combination thereof.
- 187. (Withdrawn Currently Amended) The coating paint of claim 186 185, wherein the hydrocarbon comprises an aliphatic hydrocarbon.
- 188. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 187, wherein the aliphatic hydrocarbon comprises a petroleum ether, pentane, hexane, heptane, isododecane, a kerosene, a mineral spirit, a VMP naphthas, or a combination thereof.
- 189. (Withdrawn Currently Amended) The coating paint of claim 186 185, wherein the hydrocarbon comprises a cycloaliphatic hydrocarbon.
- 190. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 189, wherein the cycloaliphatic hydrocarbon comprises cyclohexane, methylcyclohexane, ethylcyclohexane, tetrahydronaphthalene, decahydronaphthalene, or a combination thereof.
- 191. (Withdrawn Currently Amended) The coating paint of claim 186 185, wherein the hydrocarbon comprises a terpene.
- 192. (Withdrawn Currently Amended) The conting paint of claim 191, wherein the terpene comprises wood terpentine oil, pine oil, α-pinene, β-pinene, dipentene, D-limonene, or a combination thereof.
- 193. (Withdrawn Currently Amended) The coating paint of claim—186 185, wherein the hydrocarbon comprises an aromatic hydrocarbon.

194. (Withdrawn - Currently Amended) The eoating paint of claim 193, wherein the aromatic hydrocarbon comprises benzene, toluene, ethylbenzene, xylene, cumene, a type I high flash aromatic naphthas, a type II high flash aromatic naphthas, mesitylene, pseudocumene, cymol, styrene, or a combination thereof.

195. (Withdrawn - Currently Amended) The coating paint of claim-184_183, wherein the liquid organic compound comprises an-oxigenated oxygenated compound.

196. (Withdrawn - Currently Amended) The coating paint of claim 195, wherein the oxigenated oxygenated compound comprises an alcohol, an ester, a glycol ether, a ketone, an ether, or a combination thereof.

197. (Withdrawn - Currently Amended) The coating paint of claim 196 195, wherein the oxigenated oxygenated compound comprises an alcohol.

198. (Withdrawn - Currently Amended) The eoating paint of claim 197, wherein the alcohol comprises methanol, ethanol, propanol, isopropanol, 1-butanol, isobutanol, 2-butanol, tert-butanol, amyl alcohol, isoamyl alcohol, hexanol, methylisobutylcarbinol, 2-ethylbutanol, isooctyl alcohol, 2-ethylbexanol, isodecanol, cylcohexanol, methylcyclohexanol, trimethylcyclohexanol, benzyl alcohol, methylbenzyl alcohol, furfuryl alcohol, tetrahydrofurfuryl alcohol, diacetone alcohol, trimethylcyclohexanol, or a combination thereof.

199. (Withdrawn - Currently Amended) The coating paint of claim 196 195, wherein the oxigenated oxygenated compound comprises an ester.

200. (Withdrawn - Currently Amended) The eoating paint of claim 199, wherein the ester comprises methyl formate, ethyl formate, butyl formate, isobutyl formate, methyl acetate, ethyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, see-butyl acetate, amyl acetate, isoamyl acetate, hexyl acetate, cyclohexyl acetate, benzyl acetate, methyl glycol acetate, ethyl glycol acetate, ethyl diglycol acetate, butyl diglycol acetate, 1-methoxypropyl acetate, ethoxypropyl acetate, 2-methoxypropyl acetate, ethyl 3-ethoxypropionate,

isobutyl isobutyrate, ethyl lactate, butyl lactate, butyl glycolate, dimethyl adipate, glutarate, succinate, ethylene carbonate, propylene carbonate, butyrolactone, or a combination thereof.

 (Withdrawn - Currently Amended) The eoating paint of claim 196 195, wherein the oxigenated oxygenated compound comprises a glycol ether.

202. (Withdrawn - Currently Amended) The coating paint of claim 201, wherein the glycol ether comprises methyl glycol, ethyl glycol, propyl glycol, isopropyl glycol, butyl glycol, methyl diglycol, ethyl diglycol, butyl diglycol, ethyl triglycol, butyl triglycol, diethylene glycol dimethyl ether, methoxypropanol, isobutoxypropanol, isobutyl glycol, propylene glycol monoethyl ether, 1-isopropoxy-2-propanol, propylene glycol mono-n-propyl ether, propylene glycol n-butyl ether, methyl dipropylene glycol, methoxybutanol, or a combination thereof.

203. (Withdrawn - Currently Amended) The <u>coating paint</u> of claim <u>196 195</u>, wherein the <u>oxigenated oxygenated</u> compound comprises a ketone.

204. (Withdrawn - Currently Amended) The <u>coating paint</u> of claim 203, wherein the ketone comprises acetone, methyl ethyl ketone, methyl propyl ketone, methyl isopropyl ketone, methyl butyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl isoamyl ketone, diethyl ketone, ethyl amyl ketone, dipropyl ketone, diisopropyl ketone, cyclohexanone, methylcylcohexanone, trimethylcyclohexanone, mesityl oxide, diisobutyl ketone, isophorone, or a combination thereof.

205. (Withdrawn - Currently Amended) The coating paint of claim-196 195, wherein the oxigenated compound comprises an ether.

206. (Withdrawn - Currently Amended) The eoating paint of claim 205, wherein the ether comprises diethyl ether, diisopropyl ether, dibutyl ether, di-sec-butyl ether, methyl tert-butyl ether, tetrahydrofuran, 1,4-dioxane, metadioxane, or a combination thereof.

- 207. (Withdrawn Currently Amended) The coating paint of claim-184_183, wherein the liquid organic compound comprises a chlorinated hydrocarbon.
- 208. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 207, wherein the chlorinated hydrocarbon comprises methylene chloride, trichloromethane, tetrachloromethane, ethyl chloride, isopropyl chloride, 1,2-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, 1,1,2,2-tetrachloroethane, 1,2-dichloroethylene, perchloroethylene, 1,2-dichloropropane, chlorobenzene, or a combination thereof.
- (Withdrawn Currently Amended) The coating paint of claim-184 183, wherein the liquid organic compound comprises a nitrated hydrocarbon.
- 210. (Withdrawn Currently Amended) The coating paint of claim 209, wherein the nitrated hydrocarbon comprises a nitroparaffin, N-methyl-2-pyrrolidone, or a combination thereof.
- 211. (Withdrawn Currently Amended) The-coating paint of claim-184_183, wherein the liquid organic compound comprises a miscellaneous organic liquid.
- 212. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 209, wherein the miscellaneous organic liquid comprises carbon dioxide; acetic acid, methylal, dimethylacetal, N,N-dimethylformamide, N,N-dimethylacetamide, dimethylsulfoxide, tetramethylene suflone, carbon disulfide, 2-nitropropane, N-methylpyrrolidone, hexamethylphosphoric triamide, 1,3-dimethyl-2-imidazolidinone, or a combination thereof.
- 213. (Withdrawn Currently Amended) The <u>coating paint</u> of claim-184_183, wherein the liquid organic compound comprises a plasticizer.
- 214. (Withdrawn Currently Amended) The coating paint of claim 213, wherein the plasticizer comprises an adipate, an azelate, a citrate, a chlorinated plasticizer, an epoxide, a phosphate, a sebacate, a phthalate, a polyester, a trimellitate, or a combination thereof.

- 215. (Withdrawn Currently Amended) The coating paint of claim 180, wherein the liquid component comprises an inorganic compound.
- 216. (Withdrawn Currently Amended) The-coating paint of claim 215, wherein the inorganic compound comprises ammonia, hydrogen cyanide, hydrogen fluoride, hydrogen cyanide, sulfur dioxide, or a combination thereof.
- 217. (Currently Amended) The eoating paint of claim 180, wherein the liquid component comprises water.
- 218. (Withdrawn Currently Amended) The-coating paint of claim 217, wherein the liquid component further comprises methanol, ethanol, propanol, isopropyl alcohol, tert-butanol, ethylene glycol, methyl glycol, ethyl glycol, propyl glycol, butyl glycol, ethyl diglycol, methoxypropanol, methyldipropylene glycol, dioxane, tetrahydorfuran, acetone, diacetone alcohol, dimethylformamide, dimethyl sulfoxide, ethylbenzene, tetrachloroethylene, p-xylene, toluene, diisobutyl ketone, tricholorethylene, trimethylcyclohexanol, cyclohexyl acetate, dibutyl ether, trimethylcyclohexanone, 1,1,1-tricholoroethane, hexane, hexanol, isobutyl acetate, butyl acetate, isophorone, nitropropane, butyl glycol acetate, 2-nitropropane, methylene chloride, methyl isobutyl ketone, cyclohexanone, isopropyl acetate, methylbenzyl alcohol, cyclohexanol, nitroethane, methyl tert-butyl ether, ethyl acetate, diethyl ether, butanol, butyl glycolate, isobutanol, 2-butanol, propylene carbonate, ethyl glycol acetate, methyl acetate, methyl ethyl ketone, or a combination thereof.
- 219. (Withdrawn Currently Amended) The coating paint of claim 87, wherein the coating paint further comprises a colorant.
- 220. (Withdrawn Currently Amended) The-coating paint of claim 219, wherein the colorant comprises a pigment, a dye, or a combination thereof.
- 221. (Withdrawn Currently Amended) The coating paint of claim 220 219, wherein the colorant comprises a pigment.

- 222. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 221, wherein the <u>biomelecule composition</u> proteinaceous material comprises 0.001% to 100% of the pigment.
- 223. (Withdrawn Currently Amended) The <u>coating paint</u> of claim <u>222 221</u>, wherein the pigment volume concentration of the <u>coating paint</u> is <u>approximately 20%</u> to <u>approximately 60%</u>.
- 224. (Withdrawn Currently Amended) The coating paint of claim 221, wherein the pigment comprises a corrosion resistance pigment, a camouflage pigment, a color property pigment, an extender pigment, or a combination thereof.
- 225. (Withdrawn Currently Amended) The coating paint of claim 224 221 wherein the pigment comprises a corrosion resistance pigment.
- 226. (Withdrawn Currently Amended) The eoating paint of claim 225, wherein the corrosion resistance pigment comprises aluminum flake, aluminum triphosphate, aluminum zinc phosphate, ammonium chromate, barium borosilicate, barium chromate, barium metaborate, basic calcium zinc molybdate, basic carbonate white lead, basic lead silicate, basic lead silicochromate, basic lead silicochromate, basic lead silicochromate, basic zinc molybdate, calcium barium phosphosilicate, calcium borosilicate, calcium chromate, calcium plumbate, calcium strontium phosphosilicate, calcium strontium zinc phosphosilicate, dibasic lead phosphite, lead chromosilicate, lead cyanamide, lead suboxide, lead sulfate, mica, micaceous iron oxide, red lead, steel flake, strontium borosilicate, strontium chromate, tribasic lead phophosilicate, zinc borate, zinc borosilicate, zinc chromate, zinc dust, zinc hydroxy phosphite, zinc molybdate, zinc oxide, zinc phosphate, zinc potassium chromate, zinc silicophosphate hydrate, zinc tetraoxylchromate, or a combination thereof.
- 227. (Withdrawn Currently Amended) The coating paint of claim 225, wherein the coating paint is a metal surface coating paint.

- 228. (Withdrawn Currently Amended) The coating paint of claim 225, wherein the coating paint is a primer.
- 229. (Withdrawn Currently Amended) The eoating paint of claim 224,221, wherein the pigment comprises a camouflage pigment.
- 230. (Withdrawn Currently Amended) The coating paint of claim 229, wherein the camouflage pigment comprises an anthraquinone black, a chromium oxide green, or a combination thereof.
- 231. (Withdrawn Currently Amended) The eoating paint of claim 224 221, wherein the pigment comprises a color property pigment.
- 232. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 231, wherein the color property pigment comprises a black pigment, a brown pigment, a white pigment, a pearlescent pigment, a violet pigment, a blue pigment, a green pigment, a yellow pigment, an orange pigment, a red pigment, a metallic pigment, or a combination thereof.
- 233. (Withdrawn Currently Amended) The eoating paint of claim 232, wherein the color property pigment comprises aniline black; anthraquinone black; carbon black; copper carbonate; graphite; iron oxide; micaceous iron oxide; manganese dioxide[[--]], azo condensation; benzimidazolone[[--]], iron oxide; metal complex brown; antimony oxide; basic lead carbonate; lithopone; titanium dioxide; white lead; zinc oxide; zinc sulphide; titanium dioxide and ferric oxide covered mica[[--]], bismuth oxychloride crystal[[--]], dioxanine violet[[--]], carbazol Blue; carbazole Blue; cobalt blue; copper phthalocyanine; dioxanine Blue; indanthrone; phthalocyanine blue; Prussian blue; ultramarine; chrome green; chromium oxide green; halogenated copper phthalocyanine; hydrated chromium oxide; phthalocyanine green; anthrapyrimidine; arylamide yellow; barium chromate; benzimidazolone yellow; bismuth vanadate; cadmium sulfide yellow; complex inorganic color pigment; diarylide yellow; disazo condensation; flavanthrone; isoindoline; isoindolinone; lead chromate; nickel azo yellow; organic metal complex; quinophthalone; yellow iron oxide; yellow oxide; zinc chromate; perinone orange; pyrazolone orange; anthraquinone; benzimidazolone; RON arylamide; cadmium red; cadmium selenide;

chrome red; dibromanthrone; diketopyrrolo-pyrrole pigment; disazo condensation pigment; lead molybdate; perylene; pyranthrone; quinacridone; quinophthalone; red iron oxide; red lead; toluidine red; tonor pigment; β-naphthol red; aluminum flake; aluminum non-leafing, gold bronze flake, zinc dust, stainless steel flake, nickel flake, nickel powder, or a combination thereof

- 234. (Withdrawn Currently Amended) The coating paint of claim 224 221, wherein the pigment comprises an extender pigment.
- 235. (Currently amended) The-eoating paint of claim 234, wherein the extender pigment comprises a barium sulphate, a calcium carbonate, a kaolin, a calcium sulphate, a silicate, a silica, an alumina trihydrate; or a combination thereof.
- 236. (Withdrawn Currently Amended) The <u>coating paint</u> of claim-87_L, wherein the <u>coating paint further</u> comprises an additive.
- 237. (Withdrawn Currently Amended) The evating paint of claim 236, wherein the additive comprises approximately 0.001% to approximately 20.0% by weight, of the evating paint.
- 238. (Withdrawn Currently Amended) The coating paint of claim 236, wherein said additive comprises an accelerator, an adhesion promoter, an antifoamer, anti-insect additive, an antioxidant, an antiskinning agent, a buffer, a catalyst, a coalescing agent, a corrosion inhibitor, a defoamer, a dehydrator, a dispersant, a drier, electrical additive, an emulsifier, a filler, a flame/fire retardant, a flatting agent, a flow control agent, a gloss aid, a leveling agent, a marproofing agent, a preservative, a silicone additive, a slip agent, a surfactant, a light stabilizer, a rheological control agent, a wetting additive, or a combination thereof.
- 239. (Withdrawn Currently Amended) The eoating paint of claim 236, wherein the additive comprises a preservative.

- 240. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 239, wherein the preservative comprises an in-can preservative, an in-film preservative, or a combination thereof.
- 241. (Withdrawn Currently Amended) The coating paint of claim 239, wherein the preservative comprises a biocide.
- 242. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 241, wherein the biocide comprises a bactericide, a fungicide, an algaecide, or a combination thereof.
- 243. (Withdrawn Currently Amended) The coating paint of claim 236, wherein the additive comprises a wetting additive, a dispersant, or a combination thereof.
- 244. (Withdrawn Currently Amended) The coating paint of claim 236, wherein the additive comprises an anti-foamer, a defoamer, or a combination thereof.
- 245. (Withdrawn Currently Amended) The-eoating paint of claim-238 236, wherein the additive comprises a rheological control agent.
- 246. (Withdrawn Currently Amended) The coating paint of claim 245, wherein the rheological control agent comprises a thickener, a viscosifier, or a combination thereof.
- 247. (Withdrawn Currently Amended) The coating paint of claim 238_236, wherein the additive comprises a corrosion inhibitor.
- 248. (Withdrawn Currently Amended) The coating paint of claim 247, wherein said corrosion inhibitor comprises an in-can corrosion inhibitor, a flash corrosion inhibitor, or a combination thereof.
- 249. (Withdrawn Currently Amended) The coating paint of claim 238 236, wherein the additive comprises a light stabilizer.

- 250. (Withdrawn Currently Amended) The coating paint of claim 249, wherein the light stabilizer comprises a UV absorber, a radical scavenger, or a combination thereof.
- 251. (Currently Amended) The <u>eoating paint</u> of claim 1, wherein the <u>eoating paint</u> is a multi-pack <u>eoating paint</u>.
- 252. (Currently Amended) The <u>eoating paint</u> of claim 251, wherein the <u>coating paint</u> is stored in a-two to five containers prior to application to the <u>a</u> surface.
- 253. (Withdrawn Currently Amended) The-coating paint of claim 251, wherein 0.001% to 100% of the-biomolecular composition proteinaccous material is stored in a container of a-the multi-pack coatingpaint, and at least one additional coatingpaint component is stored in another container of a-the multi-pack coatingpaint.
- 254. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 253, wherein the container comprising the <u>biomolecular composition proteinaceous material</u> further comprises an additional <u>coating paint</u> component.
- 255. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 254, wherein the additional <u>coating paint</u> component comprises a preservative, a wetting agent, a dispersing agent, a buffer, a liquid component, a rheological modifier, or a combination thereof.
- 256. (Withdrawn Currently Amended) The coating paint of claim 255 254, wherein the additional coating paint component comprises glycerol.
- 257. 271. (Canceled)
- 272. (Withdrawn) A coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.
- 273. 308. (Canceled)

309. (Withdrawn – Currently Amended)—An two pack oil—based A multi-pack paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a biomolecular composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, and wherein each part of the biomolecular composition comprises 1 mg of whole cell particulate material and 50% glycerol.

310. - 312. (Canceled)

313. (Withdrawn - Currently Amended) An elastomer comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

314. (Withdrawn - Currently Amended) A filler comprising a-biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

315. (Withdrawn - Currently Amended) An adhesive comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaccous material which is configured to bind to a chemical that is toxic to humans.

316. (Withdrawn - Currently Amended) A scalant comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaccous material which is configured to bind to a chemical that is toxic to humans.

317. (Withdrawn - Currently Amended) A material applied to a textile, comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaccous material which is configured to bind to a chemical that is toxic to humans.

- 318. (Withdrawn Currently Amended) A wax comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.
- 319. (Currently Amended) A surface treatment comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule proteinaccous material which is configured to bind to a chemical that is toxic to humans and is further configured to exhibit said binding activity in the surface treatment at one or more instances after the surface treatment has been formed with the proteinaccous material for greater than approximately 1 week.
- 320. (Withdrawn Currently Amended) A-The surface treatment of Claim-claim 319, wherein the surface treatment is a coating, a paint, a non-film forming coating, an elastomer, an adhesive, an a scalant, a material applied to a textile, or a wax.
- 321. (Withdrawn Currently Amended) The surface treatment of Claim claim 320, wherein the surface treatment comprises a pH indicator.
- 322. (Withdrawn Currently Amended) The evating paint of claim 45, wherein the organophosphorus acid anhydrolase comprises an Acinetobacter calcoaceticus ATCC 19606 OPAA, an Aeromonas hydrophila ATOC 7966 OPAA, an Aeromonas proteolytica OPAA, an Arm. A isolate 1 OPAA, an Arm. A isolate 2 OPAA, a Bacillus subtilis (fr. Zuberer) OPAA, a Bacillus subtilis OPAA, a ATCC 18685 OPAA, a Bacillus subtilis BRB41 OPAA, a Bacillus subtilis Q OPAA, a Bacillus thuringensis (fr. Zuberer) OPAA, a Burkholderia cepacia LB400 OPAA, a Burkholderia cepacia T OPAA, a Citrobacter diversus OPAA, a Citrobacter freundii ATCC 8090 OPAA, an Edwardsiella tarda ATCC 15947 OPAA, an Enterobacter aerogenes ATCC 13048 OPAA, an Enterobacter cloacae 96-3 OPAA, an Enterobacter liquefaciens 363 OPAA, an Enterobacter liquefaciens 670 OPAA, an Erwinia carotovora EC189-67 OPAA, an Erwinia herbicola OPAA, an Erwinia herbicola (agglomerans) OPAA, an Escherichia coli E63 OPAA, a Hafnia alvei ATCC 13337 OPAA, a Klebsiella pneumoniae ATCC 13883 OPAA, a Lactobacillus casei 686 OPAA, a Lactococcus lactis subsp. lactis pll.253 OPAA, a Proteus morganaii OPAA, a Proteus vulgaris ATCC 1315 OPAA, a Pseudomonas aeriginosa ATCC

10145 OPAA, a Pseudomonas aeriginosa ATOC 27853 OPAA, a Pseudomonas flourescens OPAA, a Pseudomonas putida ATCC 18633 OPAA a Pseudomonas putida PpY101 OPAA, a Pseudomonas sp. P OPAA, a Salmonella typhimurium ATCC 14028 OPAA, a Serratia marcescens ATCC 8100 OPAA, a Serratia marcescens HY OPAA, a Serratia marcescens Nima OPAA, a Shigella flexneri ATCC 12022 OPAA, a Shigella sonnei ATCC 25931 OPAA, a Staphylococcus aureus ATCC 25923 OPAA, a Staphylococcus sp. S OPAA, a Streptococcus faecalis ATCC 19433 OPAA, a Vibrio parahaemolyticus TAMU 109 OPAA, a Yersinia enterocolitica ATCC 9610 OPAA, a Yersinia enterocolitica TAMU 84 OPAA, a Yersinia frederiksenii TAMU 91 OPAA, a Yersinia intermedia ATCC 29909 OPAA, a Yersinia intermedii TAMU 86 OPAA, a Yersinia kristensenia ATCC 33640 OPAA, a Yersinia kristensenia TAMU 95 OPAA, a Yersinia sp. ATCC 29912 OPAA, a Vibrio proteolyticus ATCC 15338 OPAA, a Thermus sp. ATCC 31674 OPAA, a Streptomyces cinnamonensis subsp. Proteolyticus ATCC 19893 OPAA, a Deinococcus proteolyticus ATCC 35074 OPAA, a Clostridium proteolyticum ATCC 49002 OPAA, an Aeromonas jandaei ATCC 49568 OPAA, an Aeromonas veronii biogroup sobria ATCC 9071 OPAA, a Pseudoaltermonas haloplanktis ATCC 23821 OPAA, a Xanthomonas campestris ATOC 33913 OPAA, a Pseudoalteromonas espejiana ATCC 27025 OPAA, a Shewanella putrefasciens ATCC 8071 OPAA, a Stenotrophomonas maltophilus ATCC 13637 OPAA, an Ochrobactrum anthropi ATCC 19286 OPAA, a Desulfovibrio vulgaris OPAA, or a combination thereof.

- 323. (Currently Amended) The coating paint of claim 73, wherein the biocarbonate comprises an ammonium bicarbonate.
- 324. (Currently Amended) The coating paint of claim 72, wherein the buffer comprises a monobasic phosphate buffer, a dibasic phosphate buffer, Trizma base, a 5 zwitterionic buffer, triethanolamine, or a combination thereof.
- 325. (Withdrawn Currently Amended) The coating paint of claim 213, wherein the plasticizer comprises di(2-ethylhexyl) azelate; di(butyl) sebacate; di(2-ethylhexyl) phthalate; di(isononyl) phthalate; dibutyl phthalate; butyl benzyl phthalate; di(isooctyl) phthalate; di(idodecyl) phthalate; tris(2-ethylhexyl) trimellitate; tris(isononyl) trimellitate; di(2-ethylhexyl) adipate;

di(isononyl) adipate; acetyl tri-n-butyl citrate; an epoxy modified soybean oil; 2-ethylhexyl epoxytallate; isodecyl diphenyl phosphate; tri-2-ethylhexyl phosphate; an adipic acid polyester; an azelaic acid polyester; or a bisphenoxyethylformal.

326. (Withdrawn – Currently Amended) The eoating-paint of claim 221, wherein the pigment comprises barium ferrite; borosilicate; burnt sienna; burnt umber; calcium ferrite; cerium; chrome orange; chrome yellow; chromium phosphate; cobalt-containing iron oxide; fast chrome green; gold bronze powder; luminescent; magnetic; molybdate orange; molybdate red; oxazine; oxysulfide; polycyclic; raw sienna; surface modified pigment; thiazine; thioindigo; transparent cobalt blue; transparent cobalt green; transparent iron blue; transparent zinc oxide; triarylcarbonium; zinc evanamide; or zinc ferrite.

327. (Withdrawn – Currently Amended) The eoating paint of claim 229, wherein the camouflage pigment reduces the ability of the coating to be detected by a devise device that measures infrared radiation.

328. (Withdrawn – Currently Amended) The eoating-paint of claim 239, wherein the preservative comprises 1-(3-chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride; 1,2-benzisothiazoline-3-one; 1,2-dibromo-2,4-dicyanobutane; 1,3-bis(hydroxymethyl)-5,5-dimethylhydantoin; 1-methyl-3,5,7-triaza-1-azoniaadamantane chloride; 2-(4-thiazolyl)benzimidazole; 2-(hydroxymethyl)-amino-2-methyl-1-propanol; 2(hydroxymethyl)-aminoethanol; 2,2-dibromo-3-nitrilopropionamide; 2,4,5,6-tetrachloro-isophthalonitrile; 2-mercaptobenzo-thiazole; 2-methyl-4-isothiazolin-3-one; 2-n-octyl-4-isothiazoline-3-one; 3-iodo-2-propynl N-butyl carbamate; 4,4-dimethyloxazolidine; 5-chloro-2-methyl-4-isothiazolin-3-one; 5-hydroxy-methyl-1-aza-3,7-dioxabicylco (3.3.0.) octane; 6-acetoxy-2,4-dimethyl-1,3-dioxane; 7-ethyl bicyclooxazolidine; a combination of 2-(thiocyanomethyl-thio)benzothiozole and methylene bis(thiocyanate); a combination of 4-(2-nitrobutyl)-morpholine and 4,4'-(2-ethylnitrotrimethylene) dimorpholine; a combination of 4,4-dimethyl-oxazolidine and 3,4,4-trimethyloxazolidine; a combination of 5-chloro-2-methyl-4-isothiazolin-3-one; a combination of 6-chloro-2-propynl N-butyl carbamate; a

combination of chlorothalonil and a triazine compound; a combination of tributyltin benzoate and alkylamine hydrochlorides; a combination of zino-dimethyldithiocarbamate and zinc 2-mercaptobenzothiazole; a copper soap; a metal soap, a mercury soap; a mixture of bicyclic oxazolidines; a tin soap; an alkylamine hydrochloride; an amine reaction product; barium metaborate; butyl parahydroxybenzoate; copper(II) 8-quinolinolate; diiodomethyl-p-tolysulfone; ethyl parahydroxybenzoate; glutaraldehyde; hexahydro-1,3,5-triethyl-s-triazine; hydroxymethyl-5,5-dimethylhydantoin; methyl parahydroxybenzoate; N-(trichloromethylthio) phthalimide; N-cyclopropyl-N-(1-dimethylethyl)-6-(methylthio)-1,3,5-triazine-2,4-diamine; N-trichloromethylthio-4-cyclohexene-1,2-dicarboximide; p-chloro-mcresol; phenylmercuric acetate; potassium dimethyldithiocarbamate; potassium N-hydroxy-methyl-N-methyl-dithocarbamate; propyl parahydroxybenzoate; sodium 2-pyridinethiol-1-oxide; tetra-hydro-3,5-di-methyl-2H-1,3,5-thiadiazine-2-thione; tributyltin benzoate; tributyltin oxide; tributyltin salicylate; zinc 2-pyridinethiol-N-oxide; zinc oxide; or a zinc soap.

329. (Withdrawn – Currently Amended): The coating paint of claim 243 236, wherein the additive comprises a combination of an unsaturated polyamine amide salt and a lower molecular weight acid; a polycarboxylic acid polymer alkylolammonium salt; a combination of a long chain polyamine amide salt and a polar acidic ester; a hydroxyfunctional carboxylic acid ester; or a non-ionic wetting agent.

330. (Withdrawn – Currently Amended): The eouting paint of claim 243_236, wherein the additive comprises a wetting additive.

331. (Withdrawn – Currently Amended) The eoating paint of claim 330, wherein the wetting additive comprises an ethylene oxide molecule comprising a hydrophobic moiety; a surfactant; pine oil; a metal soap; calcium octoate; zinc octoate; aluminum stearate; zinc stearate; bis(2-ethylhexyl)sulfosuccinate; (octylphenoxy)polyethoxyethanol octylphenyl-polyethylene glycol; nonyl phenoxy poly (ethylene oxy) ethanol; or ethylene glycol octyl phenyl ether.

332. (Withdrawn – Currently Amended) The eoating paint of claim 243 236, wherein the additive comprises a dispersant.

- 333. (Withdrawn Currently Amended) The <u>coating paint</u> of claim 332, wherein the dispersant comprises tetra-potassium pyrophosphate, a phosphate ester surfactant[[--]]_a particulate material, a calcium carbonate coated with fatty acid, a modified montmorillonite clay, or a caster wax
- 334. (Withdrawn Currently Amended) The <u>coating paint of claim-24436</u>, wherein the additive comprises an oil; a mineral oil; a silicon oil; a fatty acid ester; dibutyl phosphate; a metallic soap; a siloxane; a wax; an alcohol comprising six to ten carbons; or a pine oil.
- 335. (Withdrawn Currently Amended): The eoating paint of claim 244, wherein the coating further comprises an emulsifier, a hydrophobic silica, or a combination thereof.
- 336. (Withdrawn Currently Amended) The eomposition-naint of claim 245, wherein the rheology control agent comprises a silicate; a montmorillonite silicate; a luminum silicate, a bentonite, magnesium silicate, a cellulose ether, a hydrogenated oil, a polyacrylate, a polyvinylpyrrolidone, a urethane, a methyl cellulose, a hydroxyethyl cellulose, hydrogenated castor oil; a hydrophobically modified ethylene oxide urethane; a titanium chelate, or a zirconium chelate.
- 337. (Withdrawn Currently Amended): The eoating-paint of claim 247, wherein the corrosion inhibitor comprises a chromate, a phosphate, a molybdate, a wollastonite, a calcium ion-exchanged silica gel, a zinc compound, a borosilicate, a phosphosilicate, a hydrotalcite, or a combination thereof.
- 338. (Withdrawn Currently Amended) The eoating paint of claim 248, wherein the corrosion inhibitor comprises sodium nitrate, sodium benzoate, ammonium benzoate, or 2-amino-2-methyl-propan-1-ol.
- 339. (Withdrawn Currently Amended) The eoating paint of claim-250 249, wherein the light stabilizer comprises a UV absorber.

- 340. (Withdrawn Currently Amended) The eoating paint of claim 339, wherein the UV absorber comprises a hydroxybenzophenone, a hydroxyphenylbenzotriazole, a hydroxyphenyl-Striazine, an oxalic anilide, yellow iron oxide, or a combination thereof.
- 341. (Withdrawn Currently Amended) The coating paint of claim-250, 249, wherein the light stabilizer comprises a radical scavenger.
- 342. (Withdrawn Currently Amended) The coating paint of claim 341, wherein the radical scavenger comprises a sterically hindered amine; bis(1,2,2,6,6,-pentamethyl-4-poperidinyl) ester, or bis(2,2,6,6-tetramethyl-1-isooctyloxy-4-piperidinyl) ester.
- 343. (Currently Amended) The eoating paint of claim 1, wherein the coating is a coating capable of being applied to a surface by a spray applicator.
- 344. (Currently Amended) The eoating paint of claim 1, wherein the biomolecule composition is microencapsulated.
- 345. (Withdrawn Currently Amended) The eouting paint of claim 1, wherein the coating comprises a pH indicator.
- 346. (Withdrawn Currently Amended) The eoating paint of claim 345, wherein the pH indicator is a colormetric indicator.
- 347. (Withdrawn Currently Amended) The coating paint of claim 346, wherein the colormetric indicator comprises Alizarin, Alizarin S, Brilliant Yellow, Lacmoid, Neutral Red, Rosolic Red, or a combination thereof.
- 348. (Withdrawn Currently Amended) The eoating paint of claim 345, wherein the pH indicator is a fluorimetric indicator.

- 349. (Withdrawn Currently Amended) The eoating paint of claim 348, wherein the fluorimetric indicator comprises SNARF-1, BCECF, HPTS, Fluroescein, or a combination thereof.
- 350. (Withdrawn Currently Amended) The eoating paint of claim 345, wherein the pH indicator is a pH indicator that undergoes a color or fluorescence change between pH 8 to pH 9.
- 351. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances during a period of greater than approximately 1 week after the paint has been formed with the proteinaceous material.
- 352. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances after the paint has been formed with the proteinaceous material for greater than approximately 1 month.
- 353. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances after the paint has been formed with the proteinaceous material for greater than approximately 1 year.
- 354. (New) The paint of claim 1, wherein the paint is an opaque coating.
- 355. (New) The paint of claim 7, where the organophosphorus compound comprises a chemical warfare agent.
- 356. (New) The paint of claim 7, wherein the organophosphorus compound comprises a pesticide.
- 357. (Withdrawn New) The paint of claim 104, wherein the non-film formation binder lacks sufficient size to undergo film formation.

- 358. (Withdrawn New) The paint of claim 357, wherein the non-film formation binder comprises a molecular weight between approximately 1 kilodalton and approximately 29 kilodaltons.
- 359. (Withdrawn New) The paint of claim 104, wherein the non-film formation binder lacks sufficient crosslinking moiety to undergo film formation.
- 360. (Withdrawn New) The surface treatment of claim 319, where the chemical comprises one or more organophosphorus compounds.
- 361. (Withdrawn New) The surface treatment of claim 360, where the one or more organophosphorus compounds comprise one or more chemical warfare agents.
- 362. (Withdrawn New) The surface treatment of claim 360, wherein the one or more organophosphorus compounds comprise one or more pesticides.
- 363. (New) The surface treatment of claim 319, wherein the proteinaceous molecule comprises an enzyme.
- 364. (Withdrawn New) The surface treatment of claim 363, wherein the enzyme comprises a phosphoric triester hydrolase.
- 365. (New) The surface treatment of claim 319, wherein the surface treatment is an opaque coating.
- 366. (Withdrawn New) The surface treatment of claim 319, wherein the surface treatment is a clear coating.
- 367. (Withdrawn New) The surface treatment of claim 319, where the surface treatment is selected from a group consisting of a water-based coating, a solvent-based coating, an oil-based coating, and a latex-based coating.

- 368. (New) A coating comprising a proteinaceous material which is configured to bind to a chemical that is toxic to humans and is further configured to exhibit said binding activity in the surface treatment at one or more instances after the surface treatment has been formed with the proteinaceous material for greater than approximately 1 week.
- 369. (New) The coating of claim 368, wherein the proteinaceous material is further configured to exhibit said binding activity in the coating at one or more instances after the coating has been formed with the proteinaceous material for greater than approximately 1 month.
- 370. (New) The coating of claim 368, wherein the proteinaceous material is further configured to exhibit said binding activity in the coating at one or more instances after the coating has been formed with the proteinaceous material for greater than approximately 1 year.
- 371. (Withdrawn New) The coating of claim 368, where the chemical comprises one or more organophosphorus compounds.
- 372. (Withdrawn New) The coating of claim 371, where the one or more organophosphorus compounds comprise one or more chemical warfare agents.
- 373. (Withdrawn New) The coating of claim 371, wherein the one or more organophosphorus compounds comprise one or more pesticides.
- 374. (New) The coating of claim 368, wherein the proteinaceous molecule comprises an enzyme.
- 375. (Withdrawn New) The coating of claim 374, wherein the enzyme comprises a phosphoric triester hydrolase.
- 376. (New) The coating of claim 368, wherein the coating is an opaque coating.

- 377. (Withdrawn New) The coating of claim 368, wherein the coating is a clear coating.
- 378. (Withdrawn New) The coating of claim 368, wherein the coating is selected from a group consisting of a paint, an elastomer, a filler, an adhesive, a scalant, a material applied to a textile, and a wax.
- 379. (Withdrawn New) The coating of claim 368, where the coating is selected from a group consisting of a water-based coating, a solvent-based coating, an oil-based coating, and a latexbased coating.
- 380. (New) The coating of claim 368, wherein the coating is a liquid configured to form a solid film
- 381. (New) The coating of claim 368, wherein the coating is a solid film.
- 382. (New) The coating of claim 381, wherein the coating comprises a thickness between approximately 5 μm to approximately 1500 μm.
- 383. (New) The coating of claim 381, wherein the coating is a temporary film lasting upon a surface for a time period between approximately 1 second and approximately 6 months.
- 384. (New) The coating of claim 383, wherein the temporary film is susceptible to wear by exposure to water, exposure to weathering conditions, or a combination thereof.
- 385. (New) The coating of claim 383, wherein the temporary film is susceptible to wear by a scrubbing action, exposure to a solvent, or a combination thereof.
- 386. (Withdrawn New) The coating of claim 368, wherein the coating comprises a non-film forming binder which lacks sufficient size to undergo film formation.

387. (Withdrawn - New) The coating of claim 386, wherein the non-film forming binder

comprises a molecular weight between approximately 1 kilodaltons and approximately 29

kilodaltons.

388. (Withdrawn - New) The coating of claim 368, wherein the coating comprises a non-film

forming binder which lacks sufficient cross-linking moiety to undergo film formation.

389. (Withdrawn - New) The coating of claim 366, wherein the coating is a self-cleaning film.

390. (Withdrawn - New) The coating of claim 368, wherein the coating further comprises one

or more additional materials selected from a group consisting of a filler, a liquid component, a

colorant, a plasticizer, a catalyst, and a buffer.

391. (New) The coating of claim 368, wherein the coating comprises a plurality of sublayers,

and wherein at least one of the sublayers comprises the proteinaceous material.

392. (Withdrawn - New) The coating of claim 368, wherein the coating is applied to one or

more architectural surfaces, one or more industrial surfaces, one or more specification surfaces,

or a combination thereof.

Respectfully submitted, /Charles D. Huston/

Charles D. Huston Reg. No. 31,067

Attorney for Applicant

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